

STN	Analýza plynov Príprava kalibračných plynných zmesí dynamickými objemovými metódami Časť 6: Metóda kritických cloniek (ISO 6145-6: 2017)	STN EN ISO 6145-6 38 5615
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Gas analysis - Preparation of calibration gas mixtures using dynamic methods - Part 6: Critical flow orifices (ISO 6145-6:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Gas analysis - Preparation of calibration gas mixtures using dynamic methods - Part 6: Critical flow orifices (ISO 6145-6:2017)

Analyse des gaz - Préparation des mélanges de gaz
pour étalonnage à l'aide de méthodes volumétriques
dynamiques - Partie 6: Orifices de débit critiques (ISO
6145-6:2017)

Gasanalyse - Herstellung von Kalibriergasgemischen
mit Hilfe von dynamisch-volumetrischen Verfahren -
Teil 6: Kritische Düsen (ISO 6145-6:2017)

This European Standard was approved by CEN on 7 August 2017.

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European foreword

This document (EN ISO 6145-6:2017) has been prepared by Technical Committee ISO/TC 158 "Analysis of gases".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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Endorsement notice

The text of ISO 6145-6:2017 has been approved by CEN as EN ISO 6145-6:2017 without any modification.

**Gas analysis — Preparation of
calibration gas mixtures using
dynamic methods —**

**Part 6:
Critical flow orifices**

*Analyse des gaz — Préparation des mélanges de gaz pour étalonnage
à l'aide de méthodes volumétriques dynamiques —*

Partie 6: Orifices de débit critiques





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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 158, *Analysis of gases*.

This third edition cancels and replaces the second edition (ISO 6145-6:2003) which has been technically revised.

A list of all parts in the ISO 6145 series can be found on the ISO website.

Gas analysis — Preparation of calibration gas mixtures using dynamic methods —

Part 6: Critical flow orifices

1 Scope

This document specifies a method for the dynamic preparation of calibration gas mixtures containing at least two gases (usually one of them is a complementary gas) from pure gases or gas pre-mixtures using critical flow orifices systems.

The method applies principally to the preparation of mixtures of non-reactive gases that do not react with any of the materials forming the gas circuit inside the critical flow orifices system or auxiliary equipment. It has the merit of allowing multi-component mixtures to be prepared as readily as binary mixtures if an appropriate number of critical flow orifices are used.

By selecting appropriate combinations of critical flow orifices, a dilution ratio of 1×10^4 is achievable.

Although it is more particularly applicable to the preparation of gas mixtures at atmospheric pressure, the method also offers the possibility of preparing calibration gas mixtures at pressures greater than atmospheric. The upstream pressure will need to be at least two times higher than downstream pressure.

The range of flow rates covered by this document extends from 1 ml/min to 10 l/min.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6143, *Gas analysis — Comparison methods for determining and checking the composition of calibration gas mixtures*

ISO 7504, *Gas analysis — Vocabulary*

ISO 9300, *Measurement of gas flow by means of critical flow Venturi nozzles*

ISO 12963, *Gas analysis — Comparison methods for the determination of the composition of gas mixtures based on one- and two-point calibration*

ISO 16664, *Gas analysis — Handling of calibration gases and gas mixtures — Guidelines*

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